

### REMARKS

This communication is in response to the Office Action mailed on January 8, 2009. In the Office Action, claims 1-3, 7-20, and 32-33, and 39-52 were pending and were rejected. By this response, claims 1, 32 and 41 have been amended and claim 14 is canceled. All of the other remaining pending claims are unchanged in the application. Applicants respectfully request reconsideration and allowance of the pending claims.

#### **Claim Rejections – 35 U.S.C. § 101**

Claims 1-3, 5, 7-20, 32-33, and 39-52 stand rejected under 35 U.S.C. § 101 as allegedly being directed toward non-statutory subject matter. Of these rejected claims, claims 1, 32, and 41 are independent claims. Each of these independent claims have been amended to clarify their patentable subject matter. Applicants have amended each of the independent claims to explicitly state point out that data is retrieved from a computer storage medium. Thus, each claim expressly recites computer hardware. Applicants submit that independent claims 1, 32, and 41 are directed toward statutory subject matter and that each of their dependent claims are likewise directed toward patentable subject matter. Withdrawal of the rejection is respectfully requested.

#### **Claim Rejections 35 U.S.C. § 103**

On page 2, it is reported that claims 1-3, 7, 11, 14-17, 19-20, 32-33, 39-44 48, and 51-52 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 5,734,889 of Yamaguchi in view of US. Patent No. 5,555,169 of Namba et al. (hereinafter “Namba”). Claims 1, 32 and 41 are independent. Applicant respectfully traverses the rejection.

Claim 1 has been amended include the subject matter of claim 14, now canceled. As amended, claim 1 includes the feature of “rendering the designated data in plurality of candidate tables based on a plurality of candidate interpretations of semantic information provided in the natural language input, wherein each candidate table includes columns and rows based on the

schema and the associated portions of the natural language input.” It is asserted in the Office Action that Namba teaches the additional subject matter of claim 14, now included in claim 1. Applicants respectfully disagree. Claim 1 clearly recites that rendering the designated data includes rendering a plurality of candidate tables based on a plurality of candidate interpretations of semantic information. The Office Action asserts that Namba teaches this feature at col. 7, ll. 40-45. However, Applicants can find no teaching or suggestion that Namba is teaching the rendering of data in a plurality of candidate tables based on a plurality of candidate interpretations of semantic information provided in the natural language input.

The cited language in Namba merely discusses the existence of nodes that represent the semantic relationship between the nodes of data and output. There is no indication in the cited language that a plurality of candidate interpretations of semantic information exist, much less that a plurality of plurality of candidate tables are rendered. Instead, Namba appears only to indicate that it creates nodes for its chained functions structure that represent a semantic relationship between nodes of data and output. There is no mention of a plurality of candidate interpretations, rendering a plurality of tables or that the candidate interpretations are of semantic information provided in the natural language input. For at least these reasons, Applicants submit that claim 1 is allowable over the cited references.

Claim 32 is directed toward a method of processing information to drive an application. The method includes features similar to that recited in claim 1, most notably the feature of performing an action wherein performing the action includes “rendering all of the designated data into each of a plurality of candidate tables based on a plurality of candidate interpretations of semantic information provided in the natural language input”. The Office Action provides the same rationale for rejecting claim 32 as it does for rejecting claim 14. As discussed above relative to claim 1, however, Applicants submit that there is no apparent teaching or suggestion within the Namba reference of a method that includes rendering designated data into each of a

plurality of candidate tables based on a plurality of candidate interpretations of semantic information. Therefore, Applicants submit that claim 32 is allowable over the cited references.

Claim 41 is directed toward a method “of displaying information retrieved from a data source stored on a computer medium and includes the following recited features:

- receiving a first natural language input from a user;
- analyzing the first natural language input to identify semantic information contained therein;
- associating portions of the first natural language input with a command object, a frame object and an entity object of a schema based on the semantic information and the first natural language input;
- displaying a table of columns and rows to the user illustrating data retrieved from the data source as a function of the command object, the frame object and the entity object;
- receiving a second natural language input from the user referring to the table of columns and rows;
- altering the schema based on the second natural language input; and
- modifying the arrangement of the previously displayed data in the table as a function of the altered schema and displaying the newly arranged data in a modified table to the user.

(Emphasis added.) As is highlighted above, claim 41 recites displaying a table of columns and rows to the user and, based on a second natural language input, modifying the arrangement of the previously displayed data in the table as a function of the altered schema and displaying the newly arranged data in a modified table to the user. Claim 41 includes subject matter that is generally similar to that of claim 7 and the Office Action uses the same rationale for rejecting claim as is provided for the rejection of claims 1 and 7. Applicant respectfully disagrees with the rejection, both of claim 7 and of claim 41. As a preliminary matter, Applicants respectfully submit that Namba fails to teach the displaying of a table of columns and rows to a user. More particularly, Applicants submit that Namba fails to teach or suggest modifying the arrangement of previously displayed data in a table as a function of an altered schema. The portions of Namba

cited for the proposition that Namba teaches the recited features is, in the first part (col. 18, ll. 24-47), related to a rule stored in a knowledge base (11) prior to any analysis that might be performed. (See Namba, col. 18, ll. 26-28.) The language provides no teaching related toward altering a schema or a table that was previously displayed. Instead, it appears to provide an arrangement of knowledge that can be accessed during a semantic analysis of a natural language input.

In the second part (col. 28, ll. 20-49), Namba appears only to teach that a semantic analysis of a natural language input of “Display in a bar-graph” is treated differently from a natural language input of “erase the bar-graph”. In any event, Namba does not disclose displaying newly arranged data in a modified table. Instead, Namba only discusses displaying a bar-graph or erasing the graph. No mention is made of “modifying the arrangement of the previously displayed data” whatsoever. Further, there is no teaching or suggestion of modifying the arrangement of data in a table. For at least these reasons, Applicants submit that claim 41 is allowable over the cited references.

Claims 2-3, 11, 14-17, 19-20, 33, 39-40, 42-44, 48, and 51-52 are each dependent on one of the above mentioned independent claims. Applicants submit that each of these claims are allowable over the cited references based at least in part on their dependence on an allowable base claim. Withdrawal of the rejection is respectfully requested.

**Claim Rejections 35 U.S.C. § 103**

It is reported that claims 8-10, 12, 18, 45-47 and 49 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamaguchi in view of Namba and further in view of U.S. Pat. Pub. No. 2005/0216421 of Barry. Claims 8-10, 12, and 18 depend from independent claim 1 and claims 45-47 and 49 depend from independent claim 41 each of which, as discussed above, are believed to be allowable. Therefore, Applicants submit that claims 8-10, 12, 18, 45-47 and 49 are allowable based at least upon their dependency on an allowable claim. Withdrawal of the rejection is respectfully requested.

It is reported that claims 13 and 50 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamaguchi in view of Namba and further in view of U.S. Pat. No. 6,581,068 of Bensoussan et al. Claim 13 depends from independent claim 1 and claim 50 depends from independent claim 41. As discussed above, it is believed that both of the independent claims 1 and 41 are allowable. Therefore, Applicants submit that these claims are allowable based at least upon their dependency on allowable claims. Withdrawal of the rejection is respectfully requested.

**Summary**

Based on the foregoing, Applicants respectfully request that the present application be allowed. Favorable action is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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